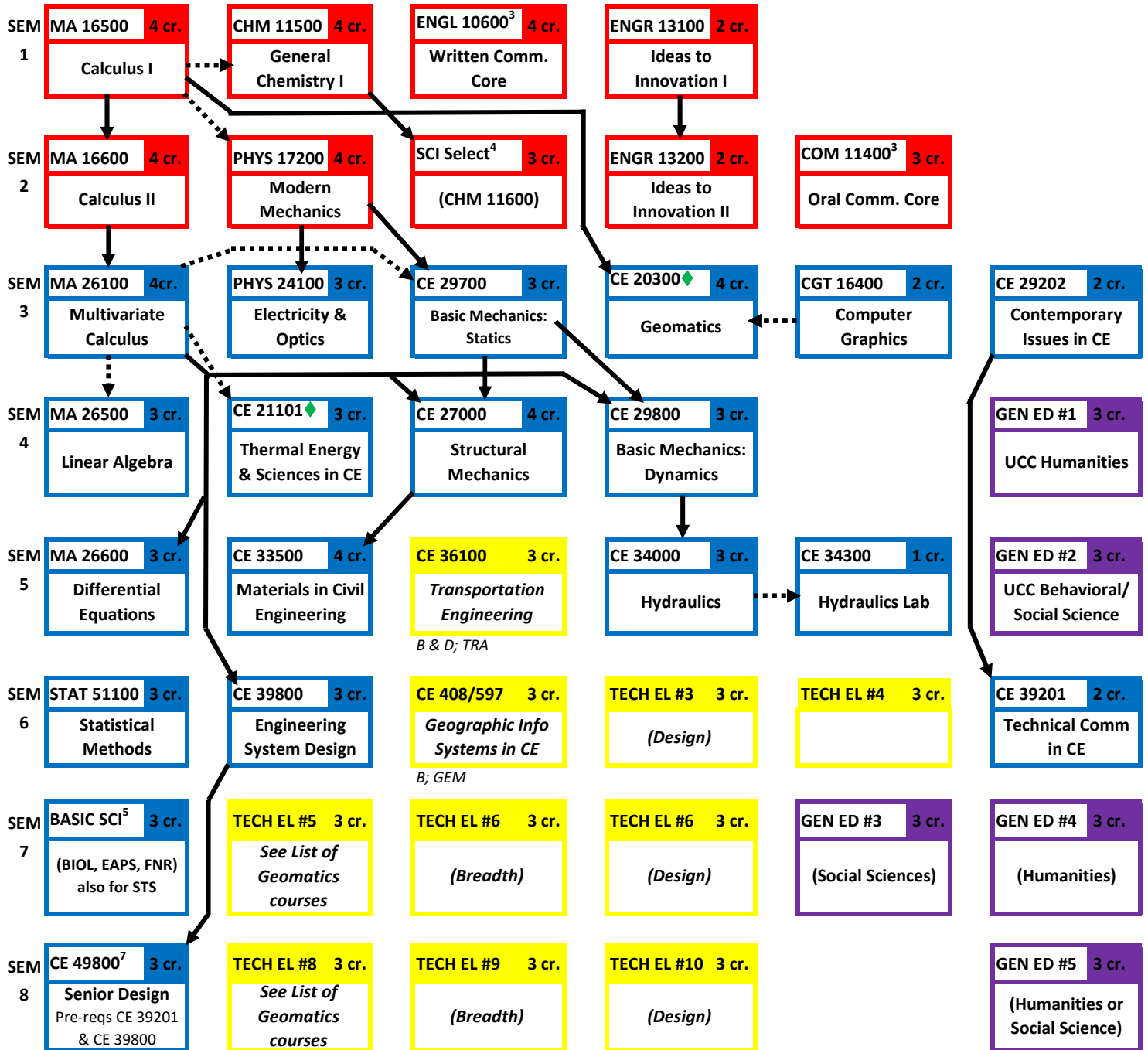


Civil Engineering Curriculum Flowchart^{1,2}

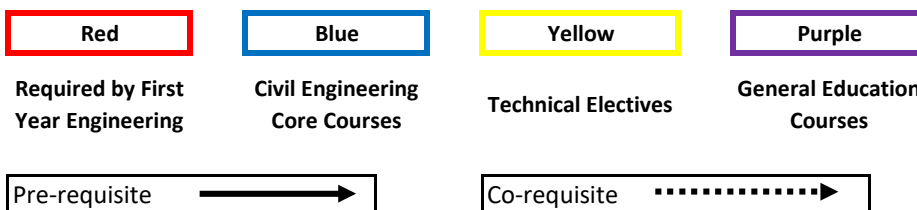
GEOMATICS Engineering Emphasis

Beginning
Fall 2021



See Foundational Core STS Requirements⁵

Legend:



See the other side of this document for Curriculum Notes & other information.

◆ CE 20300 & 21101 can be interchanged between semesters 3 & 4 of sophomore year

Italics: suggested Technical Electives listed on next page; total of 30 cr. Required

130 credit hours required for BSCE degree

Curriculum Notes:

- 1 This flowchart show the standard CE course requirements and the typical sequencing of such courses. **Some deviations, both in courses and sequencing, can occur; students should speak to their advisors or the CE Undergraduate Office for further information.**
- 2 Students should consult the following CE website for guidance on the requirements for Technical Electives* and General Education Elective courses, respectively and the limitations on transfer credits:
<https://engineering.purdue.edu/CE/Academics/Undergraduate/Current>
 *Click on the "Technical Elective Policy", the "General Education Policy", or the "Transfer Credit Policy" on the right side bar to see the .pdf documents. Students may also contact their faculty advisor or the CE Undergraduate Office for further information. In particular, it should be understood that the sequence shown for Technical Electives are listed below. **The student is ultimately responsible for knowing and completing all degree requirements.**
- 3 **Communication Courses** - for Written Communication (WC) ENGL 10600 or ENGL 10800 or SCLA 10100 or other from Written Communication Core list. For Oral Communication (CO) COM 11400 or SCLA 10200 or other from Oral Communication Core list satisfies the First Year Engineering general education requirement as well as the Oral Communication Foundational Outcome. The Lyles School of Civil Engineering, however, requires this course for graduation (subject to core policy rules) and does not consider it to be a general education course. Also refer to:
<https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>
- 4 The **Science Selective** strongly recommend by the School of Civil Engineering is CHM 11600. **Either CHM 11600 or CS 15900 is suggested.** However, we prefer CHM 11600, especially if you are interested in the environmental or water resources side of civil engineering, because CE 35000 Intro to Environmental & Ecological Engr., a technical elective, requires CHM 11600 as a pre-requisite. Students using another Science Selective such as BIOL 11000 to meet FYE requirements will still be required to take CHM 11600 or CS 15900 to graduate in Civil Engineering but can use BIOL 11000 for the Basic Science Elective.
- 5 The **Basic Science Requirement** courses are chosen from an approved list. Examples include: BIOL 11000, 12100*, 14600, 23000, & 28600 or EAPS 10000*, 10400*, 11100, 12000*, & 22100. See advisor for current approved list. Choose starred * courses to meet the Foundational Core STS (Science, Technology, & Society) if not satisfied by other general education courses. Also refer <https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>
- 6 The Lyles School of Civil Engineering faculty recommend ECON 25100 as a Foundational Behavioral/Social Science (BSS) general education course.
- 7 **CE 49800 Senior Design** must be taken in a student's final semester before graduation. The only exception to this rule is that students who plan to graduate during a summer session may take CE 49800 during the prior spring semester.

Suggestions for Technical Electives: (*B = Breadth Courses; D = Design Courses*)

CE 22200: Life Cyc Engr & Mngt Const Fac (B; <i>CON</i>)	CE 59700 Digital Photogrammetric Syst
CE 32201: Proj Cntrl Life Cyc Const Fac (<i>CON</i>)	CE 59700 Geospatial Data Analytics
CE 37100: Structural Analysis I (B; <i>STR</i>)	CE 59700 Map Proj & Geom Geodes
CE 38300: Geotechnical Engineering I (B; <i>GEO</i>)	CE 59700 Geographic Info Systems
CE 44300: Environmental Fluid Mechanics (<i>HYD</i>)	CE 59700 Laser Scanning
CE 45600: Water and Wastewater Treatment (D; <i>ENV</i>)	CE 59700 Geospatial Modeling & Analysis
CE 46100: Roadway and Pavement Design (D; <i>TRA</i>)	CE 59700 Adj Geospatial Observations
CE 46300: Highway Transportation Characteristics (<i>TRA</i>)	EAPS 38100: Geology for Engineers
CE 47000: Structural Steel Design (D; <i>STR</i>)	EAPS 38500: Principles of Engineering Geology
CE 47300: Reinforced Concrete Design (D; <i>STR</i>)	ENTR 20000: Introduction to Entrepreneurship and Innovation
CE 48300: Geotechnical Engineering II (D; <i>GEO</i>)	MGMT 20000: Introductory Accounting
CE 51200: The Comprehensive Urban Planning Process (<i>TRA</i>)	MGMT 45600: Legal Foundation for Business II

Sequence Requirement: A sequence is defined as a minimum of two (2) technical elective courses from a given CE emphasis area. Each student must complete at least two (2) such sequences of technical electives. Note that completing four courses from a single CE area of emphasis does not meet this requirement; the emphasis areas must be distinct. Certain non-CE designated courses may be used in satisfying this requirement.